

WHAT IS CLAIMED IS:

1. An intraluminal device for placement in a living body vessel comprising:

5 a tubular body having a linear shape and an inner and an outer surface, the tubular body being radially expandable from a compressed state to an expanded state;

a plurality of undulating filaments extending circumferentially about the tubular body and forming a generally ring-shaped configuration; and

10 a plurality of specifically-configured engagement members disposed on the outer longitudinal surface of the tubular body and configured to frictionally engage an inner wall of a body vessel so as to inhibit longitudinal movement of the tubular body without piercing the vessel wall.

2. The intraluminal device as in claim 1, wherein the tubular body is comprised of first and second tubular portions.

- 15 3. The intraluminal device as in claim 1, wherein each filament has a first and a second end extending through the tubular body and forming an abutting junction between two filaments.

4. The intraluminal device as in claim 1, wherein select ones of the filaments lie along the inner surface of the tubular body.

- 20 5. The intraluminal device as in claim 1, wherein the filaments are woven through the tubular body.

6. The intraluminal device as in claim 1, wherein said plurality of engagement members are constructed of a biocompatible, malleable material.

7. The intraluminal device as in claim 1, wherein said plurality of engagement members
25 are constructed from a material selected from the group consisting of a cobalt-chromium-nickel alloy, a nickel-titanium alloy, stainless steel, plastic, and tantalum.

8. The intraluminal device as in claim 1, wherein the plurality of engagement members are disposed on the outer surface of said device in a fixed geometric pattern.

9. The intraluminal device as in claim 1, wherein each engagement member is formed

by a joining member securing the junction between the two filaments.

10. The intraluminal device as in claim 1, wherein said device is an aorto-uniliac stent-graft.

11. The intraluminal device as in claim 8, further including a self-expanding stent portion
5 circumferentially disposed along the exterior surface and towards an end of the graft body.

12. An endoluminal graft for placement in a living body vessel comprising:

10 an unbranched pliable, tubular graft body having a predetermined linear shape and circumference, an interior surface and an exterior surface; and

a plurality of generally circular wireforms circumferentially disposed along the interior surface of said graft body, said wireforms each being composed of at least two undulating wires, a first wireform being joined to a second wireform to form a joined pair of wire ends, each pair of wire ends extending through the graft
15 body to the exterior surface thereof such that there is relative movement between the graft body and the wire ends, wherein the wire ends define a projection extension configured to frictionally engage a wall of the body vessel.

13. The endoluminal graft as in claim 12, further including a self-expanding stent portion circumferentially disposed along the exterior surface and towards an end of the graft
20 body.

14. The endoluminal graft as in claim 12, wherein said pliable, tubular graft body is expandable from a first radially compressed configuration to a second expanded configuration;

25 wherein the wire ends are joined together by means of a sleeve, a portion of said wire ends extending beyond said sleeve so as to define a projection extension; and

further wherein said sleeve remains substantially parallel to said graft before, during and following deployment.

15. An intraluminal conversion graft comprising:

a main trunk portion defining an interwoven tubular stent and graft element having at least a plurality of wireforms disposed therethrough;

engagement means for attaching a portion selected from the group consisting of a previously emplaced graft, a native vessel and an extension portion; and

an extension portion adapted to mate with the main trunk portion within a diseased segment of vessel.

16. The conversion graft of claim 15, said main trunk portion further comprising at least four balloon expandable wireforms in combination with at least a self-expanding wireform.

17. The conversion graft of claim 16, wherein each of said main trunk portion and said extension portion is tapered.

18. The conversion graft of claim 17, further comprising a supplemental means for enhancing tissue ingrowth and generation of a cellular matrix disposed upon an outer surface of said graft.

19. A method of converting an emplaced graft, comprising the steps of:

providing an intraluminal graft body having a plurality of separate, spaced apart wireforms woven through the body, wherein the intraluminal graft has a main trunk portion and an extension portion;

using a catheter system to insert the main trunk portion into an aneurysmal section of an aorta within the emplaced graft;

expanding the main trunk portion to engage an interior wall of the emplaced graft and generate a flow path;

using a catheter system to insert the extension portion into an aneurysmal section of an aorta within the emplaced graft; and

extending said flow path by matingly engaging the extension with the main trunk portion.

20. The method of claim 19, wherein said aneurysmal section is located in a human aorta in at least one region selection from the group consisting of the abdominal aorta, and the thoracic aorta.